

## **HASQARD Focus Group**

### **Meeting Minutes**

July 17, 2018

The meeting was called to order by Jonathan Sanwald, HASQARD Focus Group Chair at 2:02 PM on July 17, 2018 in Conference Room 223 at 2430 Stevens Center Place.

Those attending were: Jonathan Sanwald, HASQARD Focus Group Chair (Mission Support Alliance (MSA)), Cliff Watkins - Focus Group Secretary (Corporate Allocation Services, U.S. Department of Energy – Richland Operations Office (DOE-RL) Support Contractor), Marcus Aranda (Wastren Advantage Inc. Wastren Hanford Laboratory (WHL)), Steve Chalk (DOE-RL), Glen Clark (Washington River Protection Solutions (WRPS)), Jim Douglas (CH2M HILL Plateau Remediation Company (CHPRC)), Fred Dunhour (U.S. Department of Energy – Office of River Protection (DOE-ORP)), Scot Fitzgerald (CHPRC), Sheila Hahn (DOE-RL), Joel Hebdon (Northwind Services, DOE-ORP Support Contractor), Markus McGrath (WRPS), Heather Medley (CHPRC), Anthony Nagel (CHPRC), Geoff Schramm (WRPS), Paula Sellers (Waste Treatment Completion Contractor (WTCC)) Noe'l Smith-Jackson (Washington State Department of Ecology), Chris Thompson (PNNL), Rich Weiss (MSA), Katie Wood (WTCC).

- I. The Secretary requested review and approval of the meeting minutes from the HASQARD Focus Group held on June 27, 2018. The draft minutes from the meeting were distributed and time was allowed for one final review. Two editorial comments were provided to the Secretary. Hearing no additional comments on the draft meeting minutes, the minutes from the June 27, 2018 meeting were approved.
- II. The HASQARD Focus Group has a standing agenda item to discuss the status of activities associated with the DOE Consolidated Audit Program – Accreditation Program (DOECAP-AP) at all HASQARD Focus Group meetings. This month, the following updates were discussed:

Glen Clark stated that there is not much news since the last Focus Group meeting. Glen was unaware whether the schedule of upcoming assessments had been updated or not. Rich Weiss indicated that the DOECAP website had been updated within the last day. The updated schedule did not indicate any changes for any laboratories used by Hanford contractors.

Jim Douglas stated that he will be going to the DOECAP-AP assessment scheduled at the ALS facility in Ft. Collins, Colorado as an observer and reviewer of the HASQARD gap checklist the week of August 20, 2018.

Glen Clark stated that he will be going to the DOECAP-AP assessment scheduled at the ALS facility in Salt Lake City, Utah as an observer and reviewer of the HASQARD gap checklist on September 17-19, 2018.

Jonathan Sanwald inquired about the role of an “observer” that is also reviewing the HASQARD gap checklist. Jonathan stated that it sounds like the person in that role is more than an observer as defined by the DOECAP protocols for observers. Glen Clark stated that this is true. Glen was allowed free reign on the HASQARD checklist lines of inquiry at the assessment conducted at GEL in Charleston, South Carolina. Glen speculated that this may have been because neither the laboratory nor the Accrediting Body (AB) (A2LA) lead assessor were aware of the HASQARD gap checklist and that it was required for that assessment.

Glen Clark stated that Steve Clark is allowing us to get the HASQARD gap checklist included as Appendix E in the upcoming revision 5.2 to the Quality System Manual (QSM) used by DOE as the basis for DOECAP-AP accreditation. Once incorporated in the QSM, the ABs will be able to include HASQARD gap assessments as part of the DOECAP-AP accreditation process. This is required because the agreement between DOE and the three DOECAP-AP ABs is that they will accredit laboratories to the QSM. That is, it says nothing about accrediting laboratories to HASQARD.

The Secretary mentioned that just before the meeting, a note came from Steve Clark to a group of Hanford personnel that are also DOECAP auditors requesting explanatory language to be used for the QSM Appendix E HASQARD gap checklist. Glen Clark will draft the initial language used for that explanation and provide it to the Secretary who will forward it to the voting members of the Focus Group for dissemination at their discretion. Any comments made on the explanation need to be provided to Glen Clark by July 25.

Chris Thompson asked whether inclusion of the HASQARD gap checklist as Appendix E of the QSM would mean that all laboratories assessed by the ABs would “automatically” be assessed to the gap checklist or if Appendix E would only be used for assessments of those laboratories used by Hanford contractors. Glen Clark stated that Appendix E would only be used for assessments of laboratories used by Hanford. Chris Thompson asked if all laboratories used by Hanford contractors that the ABs visit between now and their next full accreditation cycle would be assessed using the gap checklist. An affirmative response to this inquiry was received.

Glen Clark stated that one “issue” with the AB assessments was that the ABs allow the laboratories up to 60 days to provide a corrective action response. Jim Douglas stated that this was news to him and this fact did not seem to be fully incorporated in the process. Glen Clark stated that Hanford has provided comments to the QSM data quality workgroup (DQW) hoping that the gaps between HASQARD and the QSM would be incorporated, but Steve Clark thought just attaching a gap checklist as an Appendix to the QSM would allow

the next revision to the QSM to be ready for publication sooner. Rich Weiss stated that he believes that when Revision 6 of the QSM is being prepared, the Hanford representatives on the DQW can “push” to get the HASQARD-specific requirements included in the QSM. This would greatly reduce or eliminate the need for a HASQARD gap checklist.

Noe'l Smith-Jackson asked how many total differences exist between the HASQARD and QSM now. That is, how many items are reflected in the HASQARD gap checklist. Noe'l recalled that it was about sixty items. Glen Clark said the checklist is ten pages and about 60 lines of inquiry total. Rich Weiss stated he recalled the number of 44 differences, so 45-60 which will winnow as they are incorporated into QSM Revision 6.

Jonathan Sanwald stated that this discussion will provide good background for Jim Douglas as he prepares to observe the ALS Ft. Collins assessment. Glen Clark suggested to Jim that he call Steve Clark before that assessment to ask Steve to remind the laboratory and the AB about the HASQARD gap checklist and the expectations associated with it. That is, the checklist should be completed by the laboratory before the assessment team arrives and verified during the assessment. Jim Douglas asked if there is a pre-assessment teleconference prior to the AB assessments similar to those used by the DOECAP. Glen Clark said, yes, there was a call about the GEL audit about 2-3 weeks before the assessment started. Jim Douglas asked if the first time Glen had seen the gap checklist was at the assessment. Glen said, no, it is the same checklist that the HASQARD Focus Group prepared and provided to Steve Clark. Jim Douglas said he would bring up the HASQARD gap checklist at the pre-assessment teleconference to see if all participants are aware of what we need. Glen Clark said Jim Douglas will be more involved in the ALS assessment than an observer in a typical gap assessment because of the HASQARD SME role he will also be filling for that assessment. The assessments are less involved when they are only a gap assessment (i.e., a laboratory is requesting accreditation for only a few methods or analytes). All assessments will be more extensive in the second year of the DOECAP-AP since they will be evaluating compliance with the entire QSM.

Rich Weiss stated that he listened to the last of the three mandatory conference calls that Steve Clark recently held to discuss the status of the DOECAP-AP. Because it was not made clear during the call, Rich followed up the teleconference with an email to Steve Clark asking if the assessment reports would be distributed to the DOECAP auditors that are working for a contractor that is using the laboratory that was assessed. The response was that the reports will be available but the laboratory's corrective action plans will not. This is because the corrective actions taken may satisfy the AB's requirements in order to accredit the laboratory but may not be enough for every laboratory user. The laboratory users will need to read the AB's report and, if a finding would require a corrective action for that specific laboratory

user, follow-up directly with the laboratory to request a corrective action status using the procurement communication methods at the user's disposal. Glen Clark added this is because DOECAP wants no liability related to the adequacy of corrective actions. The view of DOECAP is it's the ABs that are accrediting the laboratory. Therefore, the corrective actions need to only satisfy the ABs. Rich Weiss added that he noticed that the typical pre-audit materials are no longer available on the DOECAP Sharepoint site. Glen Clark said that this is correct. Only the technical experts and observers for a specific assessment will be allowed to see the pre-assessment materials.

Jonathan Sanwald asked if it would be beneficial to add an agenda item to HASQARD Focus Group meetings regarding a review/comment discussion of the DOECAP-AP assessment reports as they are issued. Heather Medley affirmed her interest in having such a discussion since all Hanford contractors using a laboratory will likely not be at the DOECAP-AP assessments. Therefore, dissemination of the information would be good.

One of the Focus Group members asked about the frequency at which DOE and/or Hanford will have observers at the DOECAP-AP assessments. Glen Clark stated that the plan is for DOE to have one or two observers at all the assessments conducted the first year and that an observer will be from Hanford if the laboratory is used by a Hanford contractor. Fred Dunhour asked if this would apply to all of the ABs. Glen Clark said we will find out by the end of the first year since the other ABs are supposed to be observed during that time.

- III. The Focus Group turned its attention to the next agenda item concerning an attempt to clarify the scope of the HASQARD to samples collected for analysis at Hanford.

Glen Clark stated that since the last meeting he and Geoff Schramm had met with Fred Dunhour, Greg Hayward (WRPS QA Manager) and Jeff Cheadle to discuss the scope of HASQARD. Glen indicated that Greg Hayward commented that there may be no need for HASQARD since the activities defined by HASQARD should be incorporated into a company's QA program and not be driven by a separate document. After saying this, Glen suggested that the Volume 1 subcommittee's suggested wording for the scope of HASQARD be displayed using visual projection and the Focus Group could use that as the basis for discussion. The Focus Group Secretary displayed the document.

Jim Douglas asked if HASQARD references the TPA using its formal title. Anthony Nagel said it is referenced that way in the first paragraph of the document.

Jonathan Sanwald stated that one issue with HASQARD in its current form is that it is a mixture of requirements and guidance.

Joel Hebdon stated that he reviewed the minutes of the June Focus Group meeting and had made a few observations. One of them was that the HASQARD reference to the EPA R5 document as a driver. The EPA R5 document only applies as a requirement to EPA organizations. The application of HASQARD should be based on each individual company's regulatory situation.

One Focus Group member asked why a requirements document (as indicated in the title) contains any guidance. Glen Clark said this has come about by the fact that the document is a consensus document where, due to compromise between the contractors in the Focus Group, requirements have been indicated using "shall" statements and "should" statements reflect best practices that are not requirements. Joel Hebdon stated that the "shall" statements in HASQARD become requirements that are really Hanford requirements not EPA or regulatory requirements. Joel added that the EPA Innovation Rule allows some "shall" statements issued by EPA to be viewed as guidance also.

Jonathan Sanwald stated that 480 requirements (shall statements) were added to HASQARD when Revision 4 was issued and compared to Revision 3. Glen Clark noted that for the Volume 2, Revision 5 Draft, many of the shall statements were changed to should statements. Jonathan added that this would help organizations be compliant. Glen Clark stated that the subcommittee involved in preparation of Volume 1 for HASQARD Revision 5 has removed much of the NQA-1 software QA (SQA) requirements that got included in Revision 4 because nobody reviewing Revision 4 knew enough about SQA to know the applicable requirements that a laboratory could be expected to comply with. Jonathan Sanwald said that this is good because he had yet to visit a commercial laboratory that even knew what the assessors were talking about when SQA implementation was discussed.

In reviewing the wording of the current scope statements for HASQARD, Rich Weiss suggested that the word "ensure" not be used. It is difficult for a QA requirements document to ensure good data are obtained. Rich suggested that words such as "provide" might be better.

Joel Hebdon observed that the word "operations" is used in the proposed scope for HASQARD and this is likely inappropriate. Anthony Nagel stated that the bullets found later in the section negate this concern.

Anthony Nagel stated that air emissions sampling and analysis are not included as being part of the scope of HASQARD in Section 1.1.1. Joel Hebdon added that this is an example of where the scope of HASQARD becomes problematic. This is because all air emissions fall under CERCLA for evaluation. Because CERCLA is part of the TPA, air emissions data can be considered in the scope of the TPA. Heather Medley added that near field

and far field stack emissions are regulated by permits. Joel Hebdon stated that NESHAPS analyses are mentioned in the HASQARD but it is not clear how a stand-alone regulation that is not CERCLA or RCRA (i.e., applicable to the TPA) can be applicable if the scope of HASQARD is to be limited to measurements made to support TPA decisions. Glen Clark agreed saying that HASQARD Volumes 2 and 4 are focused on RCRA and CERCLA applications. The QA requirements applicable to NESHAPS sampling and analysis are not addressed by HASQARD.

In reading the proposed wording for the scope of HASQARD, Fred Dunhour said that it is not accurate to state that HASQARD is in response to (or is used to implement) DOE Order 414.1D. Glen Clark asked whether it is appropriate to say this to ensure the requirements are flowed down to the commercial laboratories. Fred Dunhour stated that this should be done through the contractor's procurement processes not by creating a multi-contractor document such as HASQARD. In regard to flow down of requirements to commercial laboratories, Joel Hebdon added that as an example, when he was at EPA they had SOWs that required laboratories to have a QA program consistent with EPA R5. The laboratories would submit a laboratory QA Plan for approval.

Heather Medley said that the MSA AVS organization has been requiring CHPRC to reference the QSM in laboratory SOWs and insert specific HASQARD requirements in the text. This results in having to do separate SOWs for all different analytical services required which is cumbersome.

Regarding the scope for HASQARD, Fred Dunhour suggested that the Focus Group ensure that input be requested from environmental and legal professionals.

Joel Hebdon stated that since at least 2000 the DOE has not referenced HASQARD in any enforceable documentation due to the desire to ensure no enforcement could be made based on deviation from the requirements found in HASQARD.

Noel Smith-Jackson stated that the position of Ecology is that they support HASQARD 100%.

Geoff Schramm stated that there is no debate that the HASQARD provides useful information. However, each contractor provides a QA response to DOE Order 414.1D in the form of a company QA Program. The DOE approves the contractors' QA programs. This conflicts with the statement in HASQARD that it is in response to DOE Order 414.1D. This has the appearance of "bringing two dates to the dance." That is, the elements and requirements in HASQARD should be specified in each contractor's QA program and the HASQARD should not state that it is in response to DOE

Order 414.1D. Fred Dunhour agreed that the HASQARD is not in response to 414.1D. Rather, it presents supplemental QA requirements for a specific scope of work. Joel Hebdon added that the contractor QA programs are based on DOE Order 414.1D. Steve Chalk agreed but stated that DOE does not approve the QA programs of the subcontracted laboratories. Fred Dunhour said that while that is true, it is also true that the contracts held by the prime contractors require flow down of applicable QA requirements to subcontracted entities. Rich Weiss asked whether the problem was that the scope statement is implying that HASQARD is a first response to DOE Order 414.1D or is the problem that HASQARD is not consistent with DOE Order 414.1D? The response received was that HASQARD should not be viewed as a response to 414.1D.

The Focus Group began to discuss the basis for the development of HASQARD. Joel Hebdon said that he had contacted Jeannette Hyatt to discuss this and she said HASQARD (and its predecessor the HASQAP) were developed to specify QA requirements applicable to environmental measurements. The original documents date to a time when there were fewer Hanford contractors. However, PNNL contributed to the development of HASQAP and HASQARD with Westinghouse and, subsequently, Fluor Hanford. Therefore, the documents have always been a multi-contractor effort. The Westinghouse and Fluor scope was divided into several companies and the HASQARD was incorporated as an applicable document in each company's SOW. Geoff Schramm stated that the fact that HASQARD is only incorporated in contract SOWs as an "applicable document" makes its use somewhat ambiguous. That is, there is no contract language on its scope, making the scope statement in HASQARD the only basis for its use.

Fred Dunhour suggested that we table the scope discussion until DOE could meet to discuss how HASQARD should be directed in contracts and provide the contractors with more specific direction on its application. Once that is done, the words in the scope section of HASQARD can be revised accordingly. Joel Hebdon thought the discussion on the scope of HASQARD was beneficial and that perhaps the contractors should put something in writing and ask DOE for concurrence or alternative direction.

Noel Smith-Jackson asked whether a revision to the TPA to formally include HASQARD as a source of required QA would be helpful. Joel Hebdon said it would not be helpful because it would result in HASQARD becoming an enforceable document. Joel suggested that the scope in HASQARD delete references to EPA G4, EPA R5 and SW-846 and instead reference EPA's quality policy which is based on ANSI/ASQC E4.

Noel Smith-Jackson asked how HASQARD has existed for so many years without DOE enforcing the requirements of HASQARD.

Joel Hebdon stated that one of the problems with HASQARD is that it contains too many “shall” statements that, if not complied with, have no consequences. Geoff Schramm echoed this statement saying that when documents such as HASQARD contain too many “shalls” the organizations attempting to implement the document give up trying. Joel Hebdon agreed and asked the rhetorical question “Would nonconformance with one of the “shall statements” in HASQARD result in a measurement being deemed invalid or require a laboratory to perform corrective actions?”

Geoff Schramm stated that, in his opinion, WRPS environmental project personnel have been “desensitized” to HASQARD. As a result, the implementation of HASQARD at WRPS has become very confusing. The confusion results in questions about what we are trying to do with Revision 5 of HASQARD. In Revision 5 we are trying to figure out what HASQARD is to us as a site. That is, is it a QA program? If so, who’s reading it? Geoff added that the contractors need to know the intent of HASQARD. Should HASQARD be viewed as a regulation?

Glen Clark stated that regardless of the enforcement mechanism for HASQARD, as an analytical chemist his goal is to obtain good data from all laboratories and HASQARD is the tool he uses to do that.

Joel Hebdon agreed that reliable data are the desired result. Joel stated that he is very comfortable with the 222S laboratory QA program. However, when he learns that samples have been stored in a car in the heat and overnight prior to getting to the laboratory, how is he to trust data reported in the parts per trillion level when the error added by poor sample collection QA add percent level error.

Geoff Schramm added that the HASQARD Focus Group does a great job of pooling technical and regulatory requirements and including them in the HASQARD. However, the approach of how you take these requirements and flow them into a contractor’s quality program is not clear. Anthony Nagel said that at CHPRC they incorporate HASQARD in their company QA Program Plan (PRC-PLN-QA-599) by reference and state that the company Environmental QAPP (EQAPP) will reference procedures that incorporate HASQARD requirements. Heather Medley echoed this statement by saying that all CHPRC procedures for sampling and analysis incorporate HASQARD requirements.

Geoff Schramm said he is looking at the CHPRC documents to get ideas for how to implement HASQARD at WRPS. Geoff indicated frustration in how WRPS has implemented HASQARD (or not implemented it) and how HASQARD is viewed in the environmental projects and programs within WRPS. There is one manager at WRPS that does not view HASQARD as a source of requirements that apply to WRPS and Geoff believes this is counter



to what the Focus Group believes and is trying to achieve in the QA harmonization being discussed at Focus Group meetings. Joel Hebdon says a good approach is to flow applicable requirements from DOE Order 414.1D into HASQARD using a graded approach and then into company procedures similar to what CHPRC has done. Joel stated that HASQARD should be viewed as a set of QA requirements for specific activities. The issue becomes what does a project do if the requirements specified in HASQARD aren't applicable to that project? Steve Chalk stated that a project can use a graded approach in applying any QA requirement as long as the reason to not apply it is documented.

Anthony Nagel stated that the CHPRC EQAP states that it implements HASQARD. Most companies don't want requirements specified at the level of detail found in HASQARD in their company level QA documents. Anthony asked about the use of the word "organization" within HASQARD. That is, does it mean "company" or an organization within a company? For example, it appears that HASQARD Volume 1 is written with an analytical laboratory as the audience. Therefore, it should be clear that the word "organization" in Volume 1 of HASQARD does not apply to the operating contractors. Geoff Schramm agreed saying that this is an example of redundancy in HASQARD. That is, it can be read literally and be interpreted to overreach its intended audience. Jonathan Sanwald stated that Chris Sutton's final thoughts before he retired addressed some of these same concerns.

Joel Hebdon inquired regarding how corrective actions related to noncompliance with HASQARD requirements are addressed. Joel found that in his experience at WRPS they do not write QAPjPs for environmental sampling projects, they write a DQO and that is all. If an issue is identified with the laboratory analysis, the project will generate a problem evaluation request (PER). However, there is typically no time to address a corrective action associated with the data before the data are needed for decision making. Heather Medley responded that CHPRC has separate systems for condition reports (CRs) related to company QA issues and corrective actions required by analytical laboratories that are requested through the procurement process. The details of corrective action management are addressed in the SOWs to the laboratories using laboratory submittals. The CHPRC sample management organization also has a system in place to notify data users of issues identified with the analytical services performed. Scot Fitzgerald added that there are several processes that have been developed and documented in procedures. The CHPRC approach is to document the issue and resolve them using the condition reporting and resolution system (CRRS) for internal issues and procurement procedures for commercial laboratories. The sample management organization procedures also include flagging data to alert data users of potential issues.

Heather Medley returned to the HASQARD scope discussion saying, what is HASQARD intended to support? Is it just the TPA? Because contractors change, the HASQARD provides a consistent “playing field” for all contractors (past present and future) to follow. If “all environmental sampling and analysis” is determined to be the scope, then the scope goes beyond the TPA. Much of the environmental monitoring that MSA does would not be included if the scope is narrowed to only those analyses to support decisions relative to permits and the TPA. Anthony Nagel said perhaps the scope section should state what the HASQARD does not apply to and then everything else is included.

Paula Sellers suggested that the scope delineate from where the requirements for sampling and analysis QA come from. In the case of the Dangerous Waste Permit that would be Parts 1 and 2 which says the TPA Section 6.5 will be followed. Fred Dunhour clarified that this is only true if you are supporting a RCRA data need. Heather Medley agreed saying that is the question, does “environmental sampling” go beyond RCRA permit and TPA sampling and analysis?

Anthony Nagel posed the question, assume nothing requires use of HASQARD (i.e., in a permit or the TPA). If that’s the case, what does DOE want? His opinion was that we should implement HASQARD QA requirements for all environmental sampling and analysis. Fred Dunhour took the alternate view saying that, beyond the specified scope, the prime contractors should be able to determine how they want to implement HASQARD as they wish. Joel Hebdon added that a company probably does not want to implement HASQARD for every environmental media (e.g., biota) due to the costs involved. Anthony Nagel asked if HASQARD requirements would be too costly. That is, general QA like having clean bottles would be applicable to all media. Anthony added that the laboratory industry has evolved to appoint that there isn’t much in HASQARD that they aren’t already doing as standard practice. Joel Hebdon stated that when he was at EPA, the costs of data reviews to ensure QA requirements were being met were adding total costs to the projects. Several Focus Group members agreed with the view that this is not the case anymore. Due to the fact that there are fewer laboratories, most are part of very large laboratory corporations and the competition is so tough, they all have developed automation to support low cost analytical services. Unlike the early days of HASQARD, many laboratories have technicians that have been at the same laboratory a long time. This eliminates the issues associated with misunderstanding and inconsistent implementation of QA requirements seen in the 1990s.

Geoff Schramm asked, because of the greater sophistication of the laboratory industry, do we still need HASQARD? Anthony Nagel stated that politically, Ecology likes HASQARD. Noel Smith-Jackson agreed and said that use of

HASQARD allows Ecology to trust the data presented more. Noe'l added that the statement that HASQARD Volume 2 is not being used by some sampling organizations is "interesting."

Geoff Schramm stated that the impression the projects have is that use of HASQARD results in doubling QA requirements that are already present in the company program (e.g., the number of assessments required). Geoff said that he agrees that the information provided in HASQARD is useful and valuable, they just need to know the expectations for applying the requirements. Joel Hebdon stated that perhaps the scope of HASQARD should be based on the use of the data rather than the regulation to which the data are applied.

Rich Weiss stated that we got to where we are with HASQARD because in the 1980s Westinghouse needed something to provide structure for, primarily, commercial laboratory services being obtained through subcontract in order to get good data. The document then morphed to include sampling requirements and field analyses. Rich has always viewed HASQARD as a tool for specifying QA requirements for analytical services. Rich had never encountered the issue of whether it should (or should not) be viewed as an element of a corporate QA program. Rich committed to looking at earlier versions of HASQARD to determine if older scope statements would help the matter. Anthony Nagel speculated that the earlier versions would be of little help suggesting the Focus Group look at what we want HASQARD to be now and specify it. Joel Hebdon stated that looking at older versions may help understand how HASQARD was used in implementing the TPA. Glen Clark stated that the sampling requirements in HASQARD may have come from another DOE document on sampling that was used as the basis of the requirements found in HASQARD Volume 2. Noe'l Smith-Jackson offered that she may know someone that could provide some historical perspective regarding the intended scope for HASQARD.

Geoff Schramm concurred with the view that is more important to determine what we want HASQARD to be and how to apply it now rather than address its history. Geoff believes what we want it to do is help us produce defensible and traceable data. That is the goal.

Jonathan Sanwald stated that the path forward appears to be determined.

Geoff Schramm agreed saying that he looks forward to input from DOE-RL and DOE-ORP on the direction they would like HASQARD to take.

Seeing that the allotted time for the meeting had been exceeded, Jonathan Sanwald adjourned the meeting at 4:10 PM.

It was announced that the next meeting of the HASQARD Focus Group will be at 2:00 PM on August 21, 2018 in Conference Room 223 at 2430 Stevens Center Place.